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PTO/SB/21 (09-04)

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FORM**

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Total Number of Pages in This Submission

Application Number	10/691,079
Filing Date	October 22, 2003
First Named Inventor	Luc MERCKEN et al.
Art Unit	1614
Examiner Name	Unknown
Attorney Docket Number	FRAV2002/0030 US NP

ENCLOSURES (Check all that apply)

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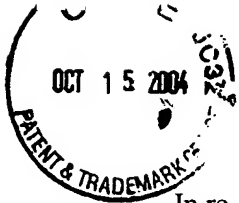
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Mercken et al.

Examiner: **Unknown**

Art Unit: **1614**

Application No.: **10/691,079**

Filed: **October 22, 2003**

Title: **INHIBITORS OF SRC KINASE FOR USE IN
ALZHEIMER'S DISEASE**

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UNDER 37 C.F.R. 1.56, 1.97 AND 1.98

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- ☒ (a) This Information Disclosure Statement is filed within the period set forth in §1.97(b) because it accompanies the new patent application submitted herewith, is filed within three months of the filing date of a national application or within three months of the date of entry of the national stage as set forth in §1.491 in an international application, or is believed to be filed before the mailing date of a first Office Action on the merits, whichever event occurs last. However, in the event that the first office action has been mailed, the Commissioner is authorized to charge any fees under 37 C.F.R. 1.17(p) or credit any overpayment to Account No. **18-1982**.

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- ☐ (1) The undersigned attorney certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement;
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Respectfully submitted,



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Complete if Known

(use as many sheets as necessary)

Sheet	1	of	4
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Application Number	10/691,079
Filing Date	10-22-2003
First Named Inventor	MERCKEN
Group Art Unit	1614
Examiner Name	Unknown
Attorney Docket Number	FRAV2002/0030 - US - NP

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			Application Number	10/691,079	
			Filing Date	10-22-2003	
			First Named Inventor	MERCKEN	
			Group Art Unit	1614	
			Examiner Name	Unknown	
			Attorney Docket Number	FRAV2002/0030 - US - NP	
Sheet	2	of	4		

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		A.E. APLIN et al., In Vitro Phosphorylation of the Cytoplasmic Domain of the Amyloid Precursor Protein by Glycogen Synthase Kinase-3 Beta, Journal of Neurochemistry, Vol. 67, 1996, pp. 699-707	
		B. SLACK, A Role for SRC Tyrosine In the Stimulation of Amyloid Precursor Protein Release by Activation of Muscarinic m3 Acetylcholine Receptors, Society for Neuroscience, Vol. 28, 1998, Abstract	
		C.L. STANDEN et al., Phosphorylation of thr668 in the cytoplasmic domain of the Alzheimer's disease amyloid precursor protein by stress-activated protein kinase, Journal of Neurochemistry, Vol. 76, 2001, pp. 316-320	
		D. SCHEUNER et al., Secreted amyloid B-protein similar to that in the senile plaques of Alzheimer's disease is increased in vivo by the presenilin 1 and 2 and APP mutations linked to familial Alzheimer's disease, Nature Medicine 2(8), 864-870 (1996)	
		HILBICH, Caroline et al., Aggregation and Secondary Structure Of Synthetic Amyloid BetaA4 Peptides of Alzheimer's Disease, J. Mol. Biol. Vol. 218, 1991, pp. 149-163	
		J. BORG et al., The X11 alpha Protein Slows Cellular Amyloid Precursor Protein Processing and Reduces A beta 40 and A beta 42 Secretion, Journal of Biological Chemistry, Vol. 273, No. 24, June 12, 1998, pp. 14761-14766	
		J. KANG et al., The precursor of Alzheimer's disease amyloid A4 protein resembles a cell-surface receptor, Nature, (1987), Vol. 325, Feb. 198 pp. 733 - 736	
		J.H. HANKE et al., Discovery of a Novel, Potent, and Src Family-selective Tyrosine Kinase Inhibitor, Journal of Biological Chemistry, Vol. 271, Jan. 12, 1996, pp. 695-701	
		K. ANDO et al., Phosphorylation-dependent Regulation of the Interaction of Amyloid Precursor Protein with Fe65 Affects the Production of Beta-Amyloid, Journal of Biological Chemistry, Vol. 276, No. 43, Oct. 26, 2001, pp. 40353-40361	
		K. ANDO et al., Role of Phosphorylation of Alzheimer's Amyloid Precursor Protein during Neuronal Differentiation, Journal of Neuroscience, Vol. 19, No. 11, June 1, 1999, pp. 4421-4427	

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			Group Art Unit	1614	
			Examiner Name	Unknown	
			Attorney Docket Number	FRAV2002/0030 - US - NP	
Sheet	3	of	4		

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		K. BONHAM et al., An Alternative, Human SRC Promoter and Its Regulation by Hepatic Nuclear Factor-1alpha, Journal of Biological Chemistry, Vol. 275, No. 48, Dec. 1, 2000, pp. 37604-37611	
		K. IJIMA et al., Neuron-Specific Phosphorylation of Alzheimer's Beta-Amyloid Precursor Protein by Cyclin-Dependent Kinase 5, Journal of Neurochemistry, Vol. 75, 2000, pp. 1085-1091	
		KIHARA Takeshi et al., Alpha-7 Nicotinic Receptor Transduces Signals To Phosphatidylinositol 3-Kinase To Block A Beta-Amyloid-Induced Neurotoxicity, The Journal Of Biological Chemistry, (2001), Vol. 276, No. 17, pp. 13541 - 13546	
		M. OISHI et al., The Cytoplasmic Domain of Alzheimer's Amyloid Precursor Protein Is Phosphorylated at Thr654, Ser655, and Thr668 in Adult Rat Brain and Cultured Cells, Molecular Medicine, Vol. 3, No. 2, Feb. 1997, pp. 111-123	
		M. SIMONS et al., Amyloidogenic Processing of the Human Amyloid Precursor Protein in Primary Cultures of Rat Hippocampal Neurons, Journal of Neuroscience, Vol. 16, No 3, Feb. 1, 1996, pp. 899-908	
		MARUYAMA, Kei et al., Cleavage At The N-Terminal Site Of Alzheimer Amyloid Beta/Alpha 4 Protein Is Essential For Its Secretion, Biochemical and Biophysical Research Communications, Aug. 14, 1994, Vol. 202, No. 3, pp. 1517 - 1523	
		RUMBLE, Baden et al., Amyloid A4 Protein and its Precursor In Downs Syndrome and Alzheimer's Disease, The New England Journal of Medicine, Vol. 320, No. 22, June 1, 1989, pp. 1446 - 1452	
		S. ESTUS et al., Potentially Amyloidogenic, Carboxyl-Terminal Derivatives of the Amyloid Protein Precursor, Science, (Vol. 255), 1992, pp. 726 - 728	
		S.L. SABO et al., Regulation of Beta-Amyloid Secretion by FE65, an Amyloid Protein Precursor-binding Protein, Journal of Biological Chemistry, Vol. 274, No. 12, March 19, 1999, pp. 7952-7957	
		B.A. YANKNER et al., Nerve growth factor potentiates the neurotoxicity of Beta amyloid, Proc. Natl. Acad. Sci, USA, Vol. 87, Nov. 1990, pp. 9020-9023	

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Sheet	4	of	4	Attorney Docket Number	FRAV2002/0030 - US - NP

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		T. RUSSO et al., Fe65 and the protein network centered around the cytosolic domain of the Alzheimer's Beta-amyloid precursor protein, FEBS Letters, Vol. 434, 1998, pp. 1-7	
		T. SUZUKI et al., Cell cycle-dependent regulation of the phosphorylation and metabolism of the Alzheimer amyloid precursor protein, EMBO Journal, Vol. 13, 1994, pp. 1114-1122	
		T.E. KMIETIK et al., Activation and Suppression of pp60c-src Transforming Ability by Mutation of Its Primary Sites of Tyrosine Phosphorylation, Cell, Vol. 29, 1987, pp. 65-73	
		WILLIAMSON Ritchie et al., Rapid Tyrosine Phosphorylation Of Neuronal Proteins Including Tau And Focal Adhesion Kinase In Response To Amyloid-Beta Peptide Exposure: Involvement Of SRC Family Protein Kinases, The Journal Of Neuroscience, (2002), Vol. 22, No. 1, pp. 10 - 20	
		Zambrano et al., Interaction of the Phosphotyrosine Interaction/Phosphotyrosine Binding-related Domains of Fe65 with Wild-type Mutant Alzheimer's B-Amyloid Precursor Proteins, Journal of Biological Chemistry 272 (10), 6399-6405 (1997)	
		N. ZAMBRANO et al., The Beta-Amyloid Precursor Protein APP is Tyrosine-phosphorylated in Cells Expressing a Constitutively Active Form of the Abl Protooncogene, Journal of Biological Chemistry, Vol. 276, No. 23, June 8, 2001, pp. 19787-19792	

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